

Product card: PLA filament for 3D printing.

**Product description:** Filament PLA - thermoplastic polyester in the form of fiber, used for 3D printing using the FFF method. Filament wound on a spool, vacuum packed with a moisture absorber. The spool contains 1 kg of net material. It can be used in all FFF printers that are not protected from external suppliers and open source structures before using. PLA is a biodegradable material, produced from renewable natural resources. It is dedicated primarily to amateurs due to trouble-free use.

Physical properties of the product:

|                                   |                           |
|-----------------------------------|---------------------------|
| Diameter of filament              | 1.75 mm / 2.85 mm         |
| Dimensional tolerance of filament | +/- 0.05 mm               |
| Roundness of filament             | +/- 0.02 mm               |
| Surface of the material           | Gloss                     |
| Shrinkage of the material         | Very low                  |
| Product weight                    | 1.0 kg net, 1.36 kg gross |
| Spool - material                  | Transparent polycarbonate |
| Weight of the empty spool         | ~250 g                    |
| The diameter of the spool         | 200 mm                    |
| Width of spool                    | ~70 mm                    |
| Diameter of mounting hole         | 52 mm                     |
| Packaging                         | Printed cardboard         |
| Package size                      | ~205x205x80 mm            |
| Vacuum packing                    | Yes                       |
| Moisture absorber                 | Yes                       |



Suggested printing parameters:

|                      |             |
|----------------------|-------------|
| Hotend               | 200-235°C   |
| Heated bed           | 50-60°C     |
| Cooling the printout | Recommended |

*Due to the structural differences of printers, the above figures should be considered as guidelines and the corresponding values must be determined experimentally.*

## Physical properties of the material:

|                       |                        |            |
|-----------------------|------------------------|------------|
| Density               | 1.24 g/cm <sup>3</sup> | ASTM D1505 |
| Elongation at Break   | 160%                   | ASTM D882  |
| Spencer Impact        | 2.5 joules             | -          |
| Softening temperature | ~50°C                  | -          |

## Availability of colors and diameters:

| Color         | Kolor                 | 1.75 | 2.85 |
|---------------|-----------------------|------|------|
| Natural       | Naturalny             | ✓    |      |
| White         | Biały                 | ✓    | ✓    |
| Vanilla       | Waniliowy             | ✓    |      |
| Bright Yellow | Jasnożółty            | ✓    | ✓    |
| Yellow        | Żółty                 | ✓    |      |
| Bright Orange | Jasnopomarańczowy     | ✓    |      |
| Orange        | Pomarańczowy          | ✓    |      |
| Bright Pink   | Jasnoróżowy           | ✓    |      |
| Pink          | Różowy                | ✓    |      |
| Lilac         | Wrzosowy              | ✓    |      |
| Hot Red       | Czerwień              | ✓    |      |
| Red           | Czerwony              | ✓    | ✓    |
| Raspberry Red | Malinowy              | ✓    |      |
| PC Gray       | Jasnoszary            | ✓    |      |
| Gray          | Szary                 | ✓    |      |
| Blue          | Błękitny              | ✓    |      |
| Super Blue    | Niebieski             | ✓    | ✓    |
| Navy Blue     | Granatowy             | ✓    |      |
| Galaxy Violet | Galaktyczny Fioletowy | ✓    |      |
| Violet        | Fioletowy             | ✓    |      |
| Mint          | Seledynowy            | ✓    |      |
| Bright Green  | Jasnozielony          | ✓    | ✓    |
| Green         | Zielony               | ✓    |      |
| Gold          | Złoty                 | ✓    |      |
| Aluminum      | Aluminiowy            | ✓    |      |
| Copper        | Miedziany             | ✓    |      |
| Beige         | Beżowy                | ✓    |      |
| Brown         | Brązowy               | ✓    |      |
| Galaxy Black  | Galaktyczny Czarny    | ✓    |      |
| Black         | Czarny                | ✓    | ✓    |